

ABSTRACT

A valve mechanism to control fluid flow between a fluid pumping device and a system that includes an inlet from the fluid pumping device, a first valve, a second valve, a first outlet fluidly connected to the system, and a second outlet. The first valve prevents backflow of fluid when the fluid pumping device discontinues pumping fluid to the system. The second valve checks fluid flow through the valve to the first outlet when fluid pressure at the inlet is less than a first predetermined pressure. The second valve permits fluid flow from the pump through the valve to the system only when fluid pressure at the inlet is greater than the first predetermined pressure. The second valve prevents fluid pressure in the system from substantially exceeding a second predetermined pressure when the pumping device is not pumping fluid to the system.

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